

**AMENDMENTS TO THE CLAIMS**

Please amend claims 1, 50, and 60-65 and add claim 66 as set forth below.

LISTING OF CLAIMS

1. (Currently Amended) A wireless sensor probe comprising:
  - a probe body for placement into the ground; said probe body having an interior, and an exterior, a top and a bottom;
  - a stabilizing member disposed on an external side surface of said probe body between said top and bottom of said probe body such that said stabilizing member is positioned beneath the ground when said wireless sensor probe is inserted into the ground; so as to minimize flow of water down said probe body;
  - a mast member including one or more sensor devices for sensing a soil property surrounding the probe body when the probe body is inserted into the ground; and
  - a top member selectively removable from a top of said probe body;  
wherein the sensor mast member is configured to removably fit within the interior of the probe body; and,  
wherein the interior of the probe body is selectively enclosable with the top member; and, wherein the wireless sensor probe is further configured to wirelessly transmit data from the one or more sensor devices.
- 2-5. (Canceled)
6. (Previously Presented) The wireless sensor probe of claim 1, further comprising: a collar situated near a top portion of the probe body.

7. (Previously Presented) The wireless sensor probe of claim 1, wherein the mast member further comprises a battery.
8. (Previously Presented) The wireless sensor probe of claim 1, further comprising a wireless transceiver circuit in communication with said sensor devices. .
9. (Previously Presented) The wireless sensor probe of claim 1, wherein the top member connects to the probe body by an arrangement selected from the following: a screw mount, a bayonet type mount and a flange mount.
10. (Previously Presented) The wireless sensor probe of claim 1, wherein the top member comprises a solar cell panel.
11. (Previously Presented) The wireless sensor probe of claim 1, wherein the top member comprises a data display.
12. (Original) The wireless sensor probe of claim 11, wherein the data display comprises one of an LED display or an LCD display.
13. (Previously Presented) The wireless sensor probe of claim 1, wherein a shape of the probe body is selected from a round shape, a hexagon shape, a rectangular shape, a triangular shape, and a cross-beam shape.
14. (Canceled)
15. (Withdrawn) A wireless sensor probe comprising: a housing containing one or more sensor devices, the housing to be inserted partially into the ground for sensing a soil property surrounding the housing; and a collar situated near a top portion of the housing, the collar being used to anchor the housing to the top of the ground when the housing is inserted into the ground.

16. (Withdrawn) A wireless sensor probe comprising: a housing containing one or more sensor devices, the housing to be inserted partially into the ground for sensing a soil property surrounding the housing; and a gasket formed on the outside perimeter of the housing for securing the housing in the ground when the housing is inserted into the ground.
17. (Withdrawn) The wireless sensor probe of claim 15, wherein the gasket comprises an angular structure surrounding the outside perimeter of the housing, the angular structure having a top portion facing the top of the housing, a bottom portion facing the bottom of the housing and a side portion having tapered width where the width decreases from the top portion to the bottom portion.
18. (Withdrawn) The wireless sensor probe of claim 15, wherein the housing further comprises a battery slot and a PC board for accommodating a processor.
19. (Withdrawn) The wireless sensor probe of claim 15, wherein the housing comprises a top portion for housing a transceiver circuit, the top portion remaining above the ground when the housing is inserted into the ground.
20. (Withdrawn) The wireless sensor probe of claim 15, wherein the housing comprises a top portion for housing a solar cell panel.
21. (Withdrawn) The wireless sensor probe of claim 15, wherein the housing is configured in a round shape, a hexagon shape, a rectangular shape, a triangular shape, or a cross-beam shape.
22. (Withdrawn) The wireless sensor probe of claim 15, wherein the housing further comprises one or more raised structures protruding out of the housing for containing the sensor device.

23-47. (Canceled)

48. (Previously Presented) The wireless sensor probe of claim 1, wherein the sensor member is a sensor mast.

49. (Previously Presented) The wireless sensor probe of claim 1, wherein the sensor member further comprises sensor components selected from the following group: an air temperature sensor, a relative humidity sensor, a light level sensor, a soil moisture sensor, a soil temperature sensor, a soil dissolved oxygen sensor, a soil pH sensor, a soil conductivity sensor, and a soil dielectric frequency response sensor.

50. (Currently Amended) A wireless soil sensor having selectively joinable components, the wireless soil sensor comprising:

a probe body having an opening into an interior of the probe body and a top end and a bottom end;

a stabilizing member disposed on an outer side surface of said probe body so as to minimize flow of water down said probe body when located in the soil;

a component mast comprising sensor circuitry; said component mast being user-insertable into the opening into the interior of the probe body; and,

a probe top selectively engagable with the probe body so as to cover the opening into the interior of the probe body;

wherein the wireless soil sensor is further configured to wirelessly transmit data from the sensor circuitry; and,

wherein said stabilizing member is located between said top end and said bottom end of said probe body.

51. (Previously Presented) The wireless soil sensor of claim 50, wherein the component mast connects to the probe top.

52. (Previously Presented) The wireless soil sensor of claim 50 further comprising a plurality of sensor components.
53. (Previously Presented) The wireless soil sensor of claim 52, wherein at least a portion of the plurality of sensor components are positioned along a length of the probe body.
54. (Previously Presented) The wireless soil sensor of claim 52, wherein at least a portion of the plurality of sensor components are positioned around a perimeter of the probe body at a first location.
55. (Previously Presented) The wireless soil sensor of claim 50, wherein the sensor circuitry further comprises sensor components selected from the following group: an air temperature sensor, a relative humidity sensor, a light level sensor, a soil moisture sensor, a soil temperature sensor, a soil dissolved oxygen sensor, a soil pH sensor, a soil conductivity sensor, and a soil dielectric frequency response sensor.
56. (Previously Presented) The wireless soil sensor of claim 50, wherein the probe top connects to the probe body by an arrangement selected from the following: a screw mount, a bayonet type mount and a flange mount.
57. (Previously Presented) The wireless soil sensor of claim 50, wherein said component mast further comprises a battery.
58. (Previously Presented) The wireless soil sensor of claim 50, wherein said top part further comprises a display.
59. (Previously Presented) The wireless soil sensor of claim 50, wherein said top part further comprises a solar cell.

60. (Currently Amended) The wireless sensor probe of claim 1, wherein said stabilizing member is a gasket includes a tapered shape that decreases in width toward a bottom portion of said probe body.

61. (Currently Amended) The wireless sensor probe of claim 60, wherein said gasket includes a tapered shape that decreases in width toward a bottom portion of said sensor body stabilizing member is further positioned so as to minimize flow of water down said probe body.

62. (Currently Amended) The wireless sensor probe of claim 60, wherein said gasket stabilizing member is a rubber ring.

63. (Currently Amended) The wireless sensor probe of claim 50, wherein said stabilizing member is a gasket further positioned so as to minimize flow of water down said probe body.

64. (Currently Amended) The wireless sensor probe of claim 50 or 63, wherein said stabilizing member gasket includes a tapered shape that decreases in width toward a bottom portion of said sensor probe body.

65. (Currently Amended) The wireless sensor probe of claim 64, wherein said gasket stabilizing member is a rubber ring.

66. (New) A wireless sensor probe comprising:

a probe body for placement into the ground; said probe body having an interior, an exterior, a top and a bottom;

a stabilizing member disposed on an external side surface of said probe body between said top and bottom of said probe body such that said stabilizing member is positioned beneath the ground when said wireless sensor probe is inserted into the ground;

a mast member;

one or more sensor devices for sensing a soil property surrounding the probe body when the probe body is inserted into the ground; and

a top member selectively removable from a top of said probe body;

wherein the mast member is configured to removably fit within the interior of the probe body; and,

wherein the interior of the probe body is selectively enclosable with the top member; and, wherein the wireless sensor probe is further configured to wirelessly transmit data from the one or more sensor devices.